Neurobiology

Volume Contents

Vol. 64, No. 1, July 2005

Special Issue
DENDRITES: BRINGING IT ALL TOGETHER

Introduction: Overview of Dendrites / 1
Hollis Cline and Nelson Spruston

Regulation of Dendritic Development by Neuronal Activity / 4
Yachi Chen and Anirvan Ghosh

Maturation of Dendritic Architecture: Lessons from Insect Identified Neurons / 11 Frederic Libersat

Remodeling Dendrites during Insect Metamorphosis / 24 D. W. Williams and J. W. Truman

Gonadal Hormone Modulation of Dendrites in the Mammalian CNS / 34 Bradley M. Cooke and Catherine S. Woolley

Dendritic Spine Morphogenesis and Plasticity / 47 Jocelyn Lippman and Anna Dunaevsky

Rho GTPases, Dendritic Structure, and Mental Retardation / 58 Sarah E. Newey, Vanisree Velamoor, Eve-Ellen Govek, and Linda Van Aelst

Synaptic Integration in Dendritic Trees / 75 Allan T. Gulledge, Björn M. Kampa, and Greg J. Stuart

Computational Modeling of Dendrites / 91 William L. Kath

Plasticity of Dendritic Excitability / 100 Andreas Frick and Daniel Johnston

Local Translational Control in Dendrites and Its Role in Long-Term Synaptic Plasticity / 116

Michael A. Sutton and Erin M. Schuman

Vol. 64, No. 2, August 2005

The dachshund Gene Is Required for the Proper Guidance and Branching of Mushroom Body Axons in Drosophila melanogaster / 133

Sharyl R. Martini and Ronald L. Davis Published online 7 April 2005

Differential Trk Expression in Explant and Dissociated Trigeminal Ganglion Cell Cultures / 145

Barış Genç, Emel Ulupınar, and Reha S. Erzurumlu Published online 12 April 2005

D-Hillarin, a Novel W180-Domain Protein, Affects Cytokinesis through Interaction with the Septin Family Member Pnut / 157

Yun Ji, Uttama Rath, Jack Girton, Kristen M. Johansen, and Jørgen Johansen Published online 7 April 2005

Synaptic Thermoprotection in a Desert-Dwelling Drosophila Species / 170 Amy E. M. Newman, Chengfeng Xiao, and R. Meldrum Robertson
Published online 7 April 2005

Seasonal-Like Plasticity of Spontaneous Firing Rate in a Songbird Pre-Motor Nucleus / 181

Kevin H. J. Park, John Meitzen, Ignacio T. Moore, Eliot A. Brenowitz, and David J. Perkel
Published online 7 April 2005

Estrogen Provision by Reactive Glia Decreases Apoptosis in the Zebra Finch (Taeniopygia guttata) / 192

Colin J. Saldanha, Kevin N. Rohmann, Luckshman Coomaralingam, and Ryan D. Wynne
Published online 7 April 2005

Initiating Morphological Changes Associated with Long-Term Facilitation in *Aplysia* Is Independent of Transcription or Translation in the Cell Body / 202 *Peter W. Grabham, Fang Wu, Samuel Schacher, and Daniel J. Goldberg* Published online 22 April 2005

Phospholipase $\rm A_2$ Activity of $\beta\textsc{-Bungarotoxin}$ Is Essential for Induction of Cytotoxicity on Cerebellar Granule Neurons / 213

Yu-Jen Chen

Published online 22 April 2005

Enhanced Gene Expression in the Forebrain of Hatchling and Juvenile Male Zebra Finches $/\ 224$

Juli Wade, Yu Ping Tang, Camilla Peabody, and Robert J. Tempelman Published online 22 April 2005

Vol. 64, No. 3, September 5, 2005

A Splice Variant of the *Drosophila* Vesicular Monoamine Transporter Contains a Conserved Trafficking Domain and Functions in the Storage of Dopamine, Serotonin, and Octopamine / 239

Christina L. Greer, Anna Grygoruk, David E. Patton, Brett Ley, Rafael Romero-Calderon, Hui-Yun Chang, Roozbeh Houshyar, Roland J. Bainton, Aaron DiAntonio, and David E. Krantz Published online 22 April 2005

Role of the Neuropeptide CCAP in *Drosophila* Cardiac Function / 259 Davide Dulcis, Richard B. Levine, and John Ewer
Published online 16 May 2005

Immediate Early Gene (ZENK, Arc) Expression in the Auditory Forebrain of Female Canaries Varies in Response to Male Song Quality / 275

Stefan Leitner, Cornelia Voigt, Reinhold Metzdorf, and Clive K. Catchpole

Published online 16 May 2005

Neuronal Calcium Sensor-1 Gene ncs-1a Is Essential for Semicircular Canal Formation in Zebrafish Inner Ear / 285

Brian Blasiole, Nadine Kabbani, Wendy Boehmler, Bernard Thisse, Christine Thisse, Victor Canfield, and Robert Levenson Published online 16 May 2005

 $ER\beta$ Protein Expression in Female Cynomolgus Monkey and CF-1 Mouse Brain: Western Analysis / 298

Shan Hu, Shi-fang Lu, Jay R. Kaplan, Michael R. Adams, and Neal G. Simon Published online 16 May 2005

Chorda Tympani Nerve Transection at Different Developmental Ages Produces Differential Effects on Taste Bud Volume and Papillae Morphology in the Rat $/\ 310$

Suzanne I. Sollars Published online 16 May 2005

Vol. 64, No. 4, September 15, 2005

Special Issue UNEXPECTED ROLES FOR MORPHOGENS IN THE DEVELOPMENT AND REGENERATION OF THE CNS

Introduction: Unexpected Roles for Morphogens in the Development and Regeneration of the CNS / 321
Paola Bovolenta and Elisa Martí

MECHANISMS OF MORPHOGEN DIFFUSION AND SPREADING Mechanisms of Morphogen Movement / 324 Maura Strigini Mechanisms of Hedgehog Gradient Formation and Interpretation / 334 Carlos Torroja, Nicole Gorfinkiel, and Isabel Guerrero

SHAPING AND GROWTH OF THE CNS Morphogens and Cell Survival during Development / 357 Patrick Mehlen, Fréderic Mille, and Chantal Thibert

Role of Morphogens in Brain Growth / 367
David Tannahill, Laura W. Harris, and Roger Keynes

Morphogens in Motion: Growth Control of the Neural Tube / 376

Jordi Cayuso and Elisa Martí

CELL MIGRATION AND CELL MOVEMENTS Role of Morphogens in Neural Crest Cell Determination / 388 Natalie C. Jones and Paul A. Trainor

Morphogen Signaling at the Vertebrate Growth Cone: A Few Cases or a General Strategy? / 405

Paola Bovolenta

Morphogens and Synaptogenesis in *Drosophila 1* 417 Guillermo Marqués

Signaling at the Vertebrate Synapse: New Roles for Embryonic Morphogens? / 435 Patricia C. Salinas

Planar Cell Polarity and a Potential Role for a Wnt Morphogen Gradient in Stereociliary Bundle Orientation in the Mammalian Inner Ear / 446

Alain Dabdoub and Matthew W. Kelley

PATHOLOGICAL GROWTH AND REGENERATION
Morphing into Cancer: The Role of Developmental Signaling Pathways in Brain
Tumor Formation / 458
Marie P. Fogarty, Jessica D. Kessler, and Robert J. Wechsler-Reya

Brain as a Paradigm of Organ Growth: Hedgehog–Gli Signaling in Neural Stem Cells and Brain Tumors / 476 Barbara Stecca and Ariel Ruiz i Altaba

CNS Regeneration: A Morphogen's Tale / 491 M. Natalia Vergara, Yvan Arsenijevic, and Katia Del Rio-Tsonis

Author Index to Volume 64 / iii

Subject Index to Volume 64 / v

Volume Contents / vii

